Gateway

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The ARRL Packet-Radio Newsletter

PORTABLE PACKET-RADIO STATIONS SENT TO ASSIST USSR EARTHQUAKE RELIEF EFFORT

On December 9, the ARRL telexed the president of the Radio Sports Federation of the USSR (RSF), Yuri Zubarev, to express the League's condolences concerning the Armenian earthquake and to offer assistance. A direct reply was not immediately received, which was hardly surprising given the situation; however, on the following Monday, the ARRL learned from QST columnist Vern Riportella, WA2LQQ, that he had an electronic mail link through San Francisco-Moscow Teleport, Inc, with Leonid Labutin, UA3CR, in Moscow who was responsible for radio communications in support of the the relief effort under the aegis of the Young Communist League. Leo is known to North Americans by virtue of his involvement in the joint Canadian-Soviet SKITREK earlier this year and his long involvement in the amateur satellite program (including attendance at the AMSAT Space Symposium held in Atlanta in November; see Gateway, Volume 5, Number 6). Through Rip, Leo requested assistance in the form of portable packet-radio stations and technical experts who could help the Soviets develop their fledgling packet-radio network on a crash basis in response to the emergency.

Rip immediately set to work, maintaining close coordination with ARRL Headquarters at every step of the way. Donations of equipment were lined up from the Tandy Corporation (six Model 102 laptop computers), Yaesu USA (six FT-23R 2-meter transceivers) and AEA (six PK-88 TNCs, a PK-232 data controller and six HotRod antennas). The donations were shipped to ARRL Headquarters and our lab crew spent much of December 15-16 making up cables to integrate the donated equipment into six complete, separate packet-radio stations. A supply of batteries and some other accessories were added to the shipment.

On December 17, ARRL Executive Vice President Dave Sumner, K1ZZ, met Rip halfway between Newington and Kennedy Airport to turn the gear over to him. It appeared it might be carried to Moscow as checked baggage that afternoon by some Soviet scientists, however, that opportunity did not occur until December 23, when it was put aboard Pan Am flight 74.

The equipment arrived in Moscow the morning of Christmas Eve and it was deployed immediately. Leo conveyed his heartfelt thanks to ARRL and everyone involved.

In response to the request for packet-radio technical experts, the ARRL was able to identify two well-qualified volunteers who were willing to donate their time to make the trek and who were young and healthy enough to endure whatever hardship might await them. However, as time went on (and as often happens in disaster situations), the apparent need for their assistance diminished, the League suspended its efforts to obtain visas for them. Through Leo, the ARRL assured the RSF that it would be pleased to send such a team to the USSR to assist with packet-radio development at their invitation in the future.

Telephone, telex and electronic mail communications has been available to both Moscow and Armenia throughout this period and the League has used these communications channels extensively. Rip's electronic mail connection is being used for volumes of outbound traffic to concerned relatives in the US and its delivery is being handled by Armenian-American organizations (the NTS is available if required).

Earlier this week, ARRL President Larry Price, W4RA, received a reply from Mr. Zubarev thanking the ARRL for its concern and indicating that there was a continuing need for portable and fixed VHF-FM equipment. The ARRL is seeing what can be done in the way of further response.

by Luck Hurder, KY1T @ KY1T,
Deputy Manager, Field Services Dept, ARRL

PORTABLE UOSAT OSCAR-11 STATION TESTED

The Digital Communication Experiment (DCE) aboard the University of Surrey UO-11 satellite was designed to be a demonstration of the store-and-forward concept utilizing low earth orbiting satellites. This experiment is the forerunner to the MicroSat/UoSAT satellites to be launched late next year. The concept of storing messages and then having another station on the other side of the world retrieve them has been successfully demonstrated with UO-11 and the various DCE stations around the world.

Jeff Ward, K8KA/GØ, has reported that a new experiment using the DCE has shown that a completely portable station, free from commercial power and fixed antenna structures, has further demonstrated the usefulness of the DCE and future MicroSat/PACSAT satellites. This portable station was built by University of Surrey engineer Victor van der Zel and has been operated successfully on several occasions. The station consists of a Kenwood 721, transmitting on 2 meters and receiving on 70 cm, and a G3RUH demodulator. With the built in digital EIA RS-232-C interface on the 721, Victor has been able to interface it with a Toshiba 1100 laptop computer to control frequency to compensate for Doppler shift. The antennas are

homebrewed 3-element quads which are manually pointed and are designed to be easily assembled. With this station it is now possible to investigate the emergency communications possibilities of the future series of MicroSat/PACSAT/UoSAT satellites from remote locations. The information learned from this experimental station and the DCE experiment will help designers of future Amateur Radio satellites.

from AMSAT News Service

HEATH'S POCKET PACKET
TNCS DONATED FOR USE IN SHUTTLE

Two representatives from Heath Company recently presented three HK-21 Pocket Packet TNCs to the NASA Johnson Space Center Amateur Radio Club in Houston for use in a proposed experiment on a future space shuttle flight.

Wayne Wilson, WB8TSO, product line manager for Heath's Amateur Radio products, and Ron Linczer, manager of marketing communications, attended the November 17 meeting of the Johnson Space Center Amateur Radio Club. At the meeting, WB8TSO discussed the products Heath has introduced over the last year and described the DXpedition that he and Heath Manager, Denton Bramwell, K7OWJ, recently made to Taipei, Taiwan (see Gateway, Volume 5, Number 4).

The primary purpose of the presentation was the donation of three Heath HK-21 Pocket Packet TNCs for use on the Shuttle Amateur Radio Experiment (SAREX) proposed for a flight in March 1990. If the project is approved, NASA will mount one of the TNCs into the SAREX casing unit to meet the rigors of space travel and will modify it slightly for use in zero gravity.

"We enjoyed meeting the club members and were treated to an impressive tour of the center and the club's recently renovated ham shack," Linczer said. "We at Heath are excited by the advances in space and see the exposure Amateur Radio received through SAREX and OSCAR as a means of attracting new, young amateurs."

PC*PACKET TCP/IP SOFTWARE AVAILABLE

Digital Radio Systems, Inc (DRSI) has announced the availability of TCP/IP for its PC*Packet Adapter. It is based on Version 122587.33 of KA9Q's TCP/IP software and has been enhanced with AX.25 mailbox and NET/ROM support by Daniel Frank, W9NK. It also includes "Bdale's Messy Mailer" by Bdale Garbee, N3EUA.

TCP/IP is available free on request to all PC*Packet owners and will be included at no charge with all new units shipped starting December 19. An archive file containing the software and preconfigured support files has been uploaded to CompuServe's HamNet and will also be available from various landline BBSs.

from Andy Demartini, KC2FF,
via CompuServe's HamNet

TERM.EXE VERSION 1.0B17 READY

Version 1.0B17 of the shareware packet-radio terminal program, TERM.EXE, is now available from CompuServe's HamNet and from its author Lynn Taylor, WB6UUT (463 Myrtle St, Laguna Beach, CA 92651). This program runs on IBM PCs, XTs, ATs, PS/2s and compatibles and is intended for use with AEA's PK-87, PK-88 and PK-232 TNCs. The new version provides improved support of the PK-88.

XEROX PBBS SOFTWARE VERSION 12.4 READY

Version 12.4 of the Xerox PBBS code is now available. The main enhancement of this version is a multiuser configuration allowing several Xerox 820 computers to be linked together over the printer serial ports. The system may also be configured as it was originally, if so desired. The release also contains a fix for a nasty bug in BID forwarding which, under certain conditions, would forward previously flagged-as-forwarded BID items. As in the past, due to the customized CBIOS used, this code will only run on Xerox machines, not on other CP/M machines.

If you would like a copy of the code which includes the December 1988 W9ZRX PBBS list, please send two 8-inch disks with a self-addressed, stamped disk-mailer to:

John Bennett, N4XI
5805 Whitethorne Dr
Evansville, IN 47710

Those of you who want EPROMs blasted for the auto-boot code should send them to N4XI as well.

Please note that Michael Anderson, KA9LQM, is no longer handling any distributions for N4XI.

(It has been discovered that some early releases of Version 12.4 have a bug in the source code of BIOSVID.INC. At the label CRTBEL, the following appears in the buggy releases of the software:

```
crtbel:     cmpm        lancon,true
            call        z,pu2no
```

It should read as follows:

```
crtbel:  if    pislan
           cmpm        lancon,true
           call        z,pu2no
           endif
```

The fatal error will occur if anything other than PISLAN is set to true under the printer port options. If the long menu comes up with Version 12.3 displayed at the top, it is that release that has the problem.)

from John Bennett, N4XI @ N4XI

TEXAS PACKET RADIO MEETING HELD

On November 19-20, the Heart of Texas Ham Operating Group hosted the Brady II packet-radio meeting in Brady, Texas, which was attended by the major owners, operators and SYSOPs of networking nodes and mailboxes/PBBSs in Texas. Packet-radio meetings at Brady are unstructured, open-ended and unaffiliated and the following topics were discussed.

145.01 MHz Network - One major area of concern was that the existing single frequency network on 145.01 MHz is overworked. This is the result of demanding more from a single frequency network than it can provide. With the growth in span of the '01' network and the number of PBBSs operating over it, the only palatable choice is to further limit the traffic flow over the network. This is not a solution to the problem - only multiport, multifrequency networks will do that - but a treatment of the symptom.

The following items were adopted by the mailbox/PBBS operators that were present :

1. That bulletins would be forwarded only between 2400-0600 Central Time.

2. Quiet time will continue between 1800-2400 Central Time.

3. No polled reverse-forwarding is permitted.

4. PACLEN and MAXFRAME should be adjusted so as to not overload the path in use.

5. Forwarding times should be better coordinated to eliminate multiple forwardings.

6. Assist in identifying and discouraging habitual "PBBS DXers." This is an area that all need to participate in and solve by education.

7. No direct PBBS-PBBS connects should be permitted on node frequencies except during a node failure.

Networking - One big news item since Brady I is the activation of TexNet from Rockport to Dallas. It is believed to be the longest dedicated 9600-baud RF backbone (over 600 miles) and it would appear that expansion of the 145.01-MHz network has been completed except to "plug" the occasional hole. A commitment was made to meet Houston Area Packet Radio Society efforts to backbone the existing 446.1-MHz nodes into San Antonio and Seguin, Texas. There is wide support for going to 4800 bauds using the HAPN modems for the NET/ROM 440-MHz backbones. No decision was made, pending the arrival of several test units. The Texas Packet Radio Society (TPRS) 9600-baud modem will probably not be used since virtually all the 440-MHz radios in use are PLL-based and the 9600-baud modems provide for direct FSK of crystals.

NET/ROM Parameters - As experience grows, so do the methods and manner of setting parameters. The consensus at this point is to leave routing open, but to fix neighbor routes and set the first seven parameters as 75(50)-100-100-255-5-4-3600 with some adjusting to be done on parameters 5-6-7.

TexNet - Some discussion on possibly modifying TexNet software to provide better interfacing to NET/ROM nodes, accommodating TCP/IP and relieving the problem of non-multiconnects for the DX clusters, was made and deserves study by the TPRS TexNet Support Group.

TPRS - Brady I expressed a consensus on widening the TPRS role in all aspects of packet radio in Texas and the ensuing months have certainly shown a major shift in that direction, most notably in the TPRS Quarterly Report and the action to change the number of TPRS directors from three to five, providing the opportunity for wider representation of the packet-radio community in general and the membership (over 300) of TPRS, in particular.

by Harry Ridenour, NØCCW,
via Greg Jones, WD5IVD

NORD><LINK ASSOCIATION ESTABLISHED

The NORD><LINK association was established as a nonprofit organization to promote digital communication techniques and digital networks when 21 members signed an agreement of association on November 26-27. The latest NORD><LINK developments are TheNet networking software Version 1.05 and TheFirmware Version 2.1d for the dual-port Pac-Comm TNC-220. Questions or comments concerning NORD><LINK should be sent with an SASE and/or IRCs to:

NORD><LINK
c/o Hans Georg Giese, DF2AU
Hinter dem Berge 5
D-3300 Braunschweig
Federal Republic of Germany

from AMSAT News Service

TEN-METER PACKET RADIO

Recently, the Gateway desk has received messages indicating that a lot of hams are having a great time using packet radio on 10 meters. Every day the sunspot count becomes more favorable for propagation on 10 meters and DX is easy with only a peanut whistle for a transmitter and a 16-foot hunk of wire cut in half for an antenna. Some folks have admitted using packet radio up in the 29-MHz segment of the band and some have also admitted to 10-meter packeting in the FM mode. Problem is that such activity is illegal. According to FCC regulations, packet radio is only permissible in the 28.000-28.300-MHz subband of 10 meters and F1B (FSK) is the only permissible mode for packet radio at those frequencies [refer to sections 97.69(a) and 97.61(a) of the FCC regulations.] See you on 28.105!

GATEWAY CONTRIBUTIONS

Submissions for publication in Gateway are welcome. You may submit material via the US mail to:

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Stan Horzepa, WA1LOU
75 Kreger Drive
Wolcott, CT 06716-2702

or electronically, via CompuServe to user ID 70645,247. Via telephone, your editor can be reached on evenings and weekends at 203-879-1348 and he can switch a modem on line to receive text at 300, 1200 or 2400 bauds.

The deadline for each issue of Gateway is the Saturday preceding the issue date (which is typically a Friday).

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